Ø BEAT

SPECIAL SERVICE CLUB

COLORADO SPRINGS,
COLORADO

MAY/JUNE 1993

THE SKY'S THE LIMIT WITH AMATEUR RADIO!

NOTICE!!
NEW MEETING PLACE
SEE PAGE 2

MEMBER
ARNS
Amateur Radio News Service

Pikes Peak Radio Amateur Association, Inc.
P. O. Box 16521
Colorado Springs, Colorado 80935

FIRST CLASS MAIL

Ø BEAT

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ZERO BEAT is published monthly in the interest of the members or the Pikes Peak Radio Amateur Association, Inc., PO Box 16521, Colorado Springs, Colorado 80935. For membership and subscription information see last page of this publication. The Pikes Peak Radio Amateur Association meets monthly on the second Wednesday of each month at the Disabled American Veterans, Chapter 26, 6880 Palmer Park Blvd. at 7PM.

EDITOR: Ron Deutsch, NKØP, 4305 Ridgelane Drive, Colorado Springs, Colorado 80918 (719)593-8352
Deadline for submission of articles or ads is the 21st of each month. Submissions may be sent to the Editor or to the club PO box. Permission to reprint articles is granted provided credit is given to both the author and this publication.

ADVERTISING RATES: Full page $48; half page $24; quarter page $12; business card $6. These are monthly rates and are billed quarterly. Send your ad requests and payments to: PPRAA, PO Box 16521, Colorado Springs, Colorado 80935.

PPRAA Changes Meeting Place

Effective with the May 12, 1993 PPRAA meeting our new location will be the Disabled American Veterans Chapter 26 at 6880 Palmer Park Blvd.

Go east on Palmer Park past Powers Blvd. to Peterson Road. The DAV is on your left before the stop light. Plenty of parking is available in the DAV's lot. The time will stay 7:00 pm.

The program for this meeting will be "Building a crystal radio". Their will be a limited number of parts available at the meeting to construct these radios so if you have not already signed up contact Bill, NØNJX at 591-2116.

If you have any questions about the new meeting place contact any club officer or board member listed in the masthead at the top of this page.

Notice!

Updated membership roster will be available for **club members** at the Hamfest.

Committee Chairpersons

Publicity	Al Craig	594-9288
Membership	Les Borst	634-3995
Education	Al Bailey	597-8514
VE Testing	Rick Brown	531-9423
Interference	Bill Petty	591-2116
RACES	Doug Moloney	unlisted
ARES	John Chapman	635-1604
SkyWarn	Steve Westby	570-1070
Public Service	Mike Stansberry	636-1290
CCARC	Oak Stockton	570-7782
Club Trailor	Steve Westby	570-1070
Newsletter	Ron Deutsch	593-8352
Club Historian	Al Craig	594-9288
Swapfest	Doug Paris	495-9346

VE Testing in Woodland Park and Colorado Springs

Saturday, May 22nd beginning at 0900 at the Mayflower School Bus Building on Reserch Dr. off Hiway 67 North. Applicants must register with Pat Stewart, NXØG at 687-0981 prior to the test day so that arrangements can be made and materials available for the tests you wish to take.

VE testing will also be available at the PPRAA Hamfest 15 May 1993. For more information contact Rick Brown at 531-9423

The next scheduled VE test in Colorado Springs will be on June 12th 1993 at Denver Tech College, 225 S. Union. Call KDØSU, 531-9423.

PIKES PEAK RADIO AMATEUR ASSOCIATION

HAMFEST 1993

ELECTRONIC, RADIO AND COMPUTER FESTIVAL

SATURDAY MAY 15, 1993
8 AM - 4 PM

CITY AUDITORIUM
COLORADO SPRINGS

221 E. KIOWA ST.

TALK-IN 146.37/97 OR 146.52

Grand Prize - ICOM 725 HF Transceiver and hourly drawings!!!

Table Reservations
Dennis OCHS N7OGL
850 Sante Fe St.
Colorado Springs, CO 80903
1-719-630-0704

HAMFEST Chairman
Doug Paris N4TGO
16645 High Tree Drive
Elbert, CO 80106
1-719-495-9346

*$3 Admission * Tables $10 * VE Testing * Commercial Exhibits * Children under 10 FREE *

Dits and Bits

For Sale:
Complete HF station: Kenwood TS-820 w/500 Hz CW filter, ext. VFO-820, MC-50 mic, matching spkr (SP-520). Operation and service manuals, all original boxes. $500. Hygain vertical, 14AVQ/WB (10-40M) $50. WDØCNQ, Dan Hausaure, (719) 597-4095 evenings 7-9pm.

For Sale:
Cushcraft A-50-5 long boom 6mtr antenna. Like new, no corrosion. $100.00
Hardline in various lenghts with and without connectors.
Stereo sound card with speakers for IBM. Ad Lib compatible. Software and manual. $50
Ron, NKØP, 593-8352.

Thanks!!
We would like to thank the Hrebeck family for their generous donation of equipment and parts to the Club. The donation included a few mint condition pieces of ARC-5 transmitters and receivers which will be available for purchase at the **May 15th Swapfest**. Also, a big thank you to Mike, KØTER for having storage space for this equipment and a truck to get it there.

Thanks!!
Al, NØCMW, and Frances, NØIUT, wish to thank all who helped us celebrate our 50th wedding anniversary and renewal of marriage vows on April 18th. Your presence and good wished helped make our celebration happy and successful.

PPRAA SWAPFEST NEWS

Things are looking good for the upcoming Hamfest. Together, Mona, NØOPH, and I have been getting a great raffle together in conjunction with it.
The Grand Prize is an ICOM 725 HF rig. Wouldn't it be fun to put this brand new rig on the air?
We also have over 70 hourly prizes and a promise of more. We plan to give winners their choice of prizes. We will start drawing at 9am and we will post the winners names. Those prizes not claimed by 2pm will be given away at that time.
Every one's ticket will be in the Barrel for the 3pm drawing for the grand prize. Winner need not be present to win it.
All profits from the raffle are kept in a special bank account and are used for education and public service.
The raffle tickets are $1 each or 6 for $5. For the ticket office nearest you call WAØMNL, Rosie at 471-9965..we will be glad to deliver.
I thank every one who helped with the raffle tickets while I was out of town.

Rosie WAØMNL

Swapfest Boutique

Last call for any and all items, (crafts, odds and ends, left overs), to be sold at our Swapfest on May 15th, 1993 at the City Auditorium.
If you have any questions, please cal Connie, KAØPXE, at 634-1081, or Faye, KBØQI, at 632-4574. All proceeds will go to our club, PPRAA. Thanks!

OM/YL Lunch Bunch

On 22 April 1993 ten OM/YLs and their guests met at the Country Buffet for a most enjoyable lunch.
The next luncheon will be at the Golden Palace Chinese Restaurant in the Pioneer Plaza on May 20, 1993 at 11:30 am.
Then on June 17, 1993 we will meet at the Home Town Buffet at the Shops at the Bluffs, again at 11:30 am.
All you chow hounds, and guests, come and join us!!!

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Colorado Springs, CO 80909

633-4666

May 1993

PIKES PEAK RADIO AMATEUR ASSOCIATION

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 7:00am Village Inn Breakfast 8:00am RACES Exercise 8:00pm SCTN 146.97
2 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**3** 7:00pm Packet Voice Net 146.97 8:00pm SCTN 146.97	**4** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**5** 8:00pm SCTN 146.97	**6** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**7** 8:00pm SCTN 146.97	**8** 7:00am Village Inn Breakfast 10:00am Fox Hunt 8:00pm SCTN 146.97
9 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**10** 8:00pm SCTN 146.97	**11** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**12** 7:00pm PPRAA Meeting D.A.V. Program--Crystal Radios 8:00pm SCTN 146.97	**13** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**14** 8:00pm SCTN 146.97	**15** PPRAA SWAPFEST CITY AUDITORIUM 7:00am Village Inn Breakfast 8:00pm SCTN 146.97
16 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**17** 7:00pm Packet Voice Net 146.97 7:00pm PPRAA BOARD MEETING (KOCI) 8:00pm SCTN 146.97	**18** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**19** 7:00pm MARC Meeting Woodland Park 8:00pm SCTN 146.97	**20** 7:00pm Teller Co. ARES Net 146.82 7:00pm EPC RACES TRAINING 8:00pm SCTN 146.97	**21** 8:00pm SCTN 146.97	**22** 7:00am Village Inn Breakfast 1:00pm SKYWARN Training EPCOEM 8:00pm SCTN 146.97
23 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**24** 0-BEAT DEADLINE 8:00pm SCTN 146.97	**25** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**26** 8:00pm SCTN 146.97	**27** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**28** 8:00pm SCTN 146.97	**29** 7:00am Village Inn Breakfast 8:00pm SCTN 146.97
30 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**31** 7:00pm Packet Voice Net 146.97 8:00pm SCTN 146.97					

April

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June

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27	28	29	30			

June 1993

PIKES PEAK RADIO AMATEUR ASSOCIATION

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**2** 8:00pm SCTN 146.97	**3** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**4** 8:00pm SCTN 146.97	**5** 7:00am Village Inn Breakfast 8:00pm SCTN 146.97
6 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**7** 8:00pm SCTN 146.97	**8** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**9** 7:00pm PPRAA CLUB MEETING (DAV) 8:00pm SCTN 146.97	**10** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**11** 8:00pm SCTN 146.97	**12** Tour DE Cure 7:00am Village Inn Breakfast 10:00am Fox Hunt 8:00pm SCTN 146.97
13 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**14** 8:00pm SCTN 146.97	**15** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**16** 7:00pm MARC Meeting Woodland Park 8:00pm SCTN 146.97	**17** 7:00pm Teller Co. ARES Net 146.82 7:00pm EPC RACES Training 8:00pm SCTN 146.97	**18** 8:00pm SCTN 146.97	**19** 7:00am Village Inn Breakfast 8:00pm SCTN 146.97
20 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**21** 8:00pm SCTN 146.97	**22** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**23** 8:00pm SCTN 146.97	**24** 7:00pm Teller Co. ARES Net 146.82 8:00pm SCTN 146.97	**25** 8:00pm SCTN 146.97	**26** 7:00am Village Inn Breakfast 8:00pm SCTN 146.97
27 COLORADO ARES NETS 7:30pm RACES HF NET 3990.5 8:00pm SCTN 146.97 8:00pm ARES Data Training 145.09	**28** 0-BEAT DEADLINE 8:00pm SCTN 146.97	**29** 7:00pm ARES NET 146.97 7:30pm RACES NET 146.97 8:00pm SCTN 146.97	**30** 8:00pm SCTN 146.97			

May

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23	24	25	26	27	28	29
30	31					

July

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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

2 Meter FM Simplex Operation

There are lots of Repeater Directories around but little has been published about simplex frequencies. Because FM requires channelized operation within the simplex bands, it must be divided up proportionately. On the east coast they divide it up in 20 khz channels but in the west we use 30 khz channel spacing.
If you operate in between on 15 khz spacing or just operate on your favorite lottery number you may cause off frequency garble type interference to people using the correct frequency or you can interfere with 2 channels at the same time.
The frequencies used in Colorado Springs area are:

146.40--Pueblo code practice
146.43
146.46
146.49
146.52--National calling frequency
146.55
146.58--used by ARES occasionally
147.42
147.45
147.48
147.51
147.54
147.57
And please don't use the National Calling Frequency (146.52) to tune up your antenna or check out your touch-tone pad.

submitted by Paul, WØRW

THIS IS A QSL CARD FROM THAT GUY THAT'S ALWAYS TELLING ME WHERE TO GO!

All Systems Go

Hold this rectangle to your face and blow on it!

If it turns green---call your physician
If it turns brown--see your dentist
If it turns purple--consult your psychiatrist
If it turns red--see your banker
If it turns black-call your lawyer...and make a will.

If it remains the same color, you are in good health and there is no reason on earth why you should not be active in Ø-Beat Ham Radio activities every day.
(author unknown)

Submitted by John W. Green KA6AHY/AAR8OX

HEADS UP, BELOW---I BELIEVE I'VE HOOKED THE GUY WIRES TO MY LADDER INSTEAD OF THE TOWER!

"The View From the Peak"

"On the road - again..."

by George Hinds, N8CIX

Going cross-country, the first need (besides money and knowing the good eating places) is to safely be able to program numerous repeater frequencies as you motor along. Just as every student pilot should be taught that one's first responsibility is to fly the airplane, then handle the radio, the same caveat holds true for amateurs as motorists: first drive the car, then play with the radio.

The next step logically follows that you should mount your rig where you can see it easily. Sticking one's head under the steering wheel to play with the radio while tooling down the interstate is not conducive to longevity. Of course, sticking it up in plain sight poses another problem - it's too attractive to people with larceny in their heart. Well, you can work your way around that somehow, you know. These tiny new jitneys we're driving get tougher and tougher to fit radios into where they can be safely operated, but you can generally figure it out. Do it. It's far better than getting into an accident because of that radio being poorly placed.

Well, anyway, off we went towards Lincoln, Nebraska and a meeting to attend. Not amateur radio this time; instead, about railroad passenger service on the Union Pacific and a visit to the Burlington Northern dispatching center. .

The first difficulty came at Mt. Morgan; several calls looking for conversation on the .24 repeater but no response. This was repeated at Sterling on the .91 repeater. Perhaps it was due to it being a weekday? Maybe. But on the return trip on Sunday afternoon, more tries still brought forth no response on either repeater. Well, I wasn't calling "Mayday" either; perhaps that would have pulled someone out of the woodwork. There's supposed to be another repeater near Sterling, too, on 145.175. However, it must be a "stealth" system; never heard on the air and never accessed by me when passing by and trying time and again.

An unusual repeater system is .82 near Beaver Crossing, NE. It has two inputs; one is on 146.22 as expected. However, the other receiver site is "upside down" and thus on 147.42. Strange, perhaps, but it works, so?

On the good side, coming in toward Denver Sunday I checked in on the Colorado Connection from milepost 99 on Interstate 76. That's pretty fair coverage using the 145.31 site at Thorodin Mt. and the 145.40 site near Akron. Also could use the 146.94 system on Squaw Mt. from that distance out.

My tour of the BN dispatching center at Lincoln was interesting indeed. Having once been a relief train dispatcher for a very busy railroad, it's something that I never loose interest in. While the office is not overly large, it has several dispatchers on duty each eight-hour shift overseeing several hundred miles of the BN system in Nebraska.

The first thing obvious to me was the appearance of computers all over the office. The chief dispatcher position had about ten screens to watch, covering all the lines under the jurisdiction of his office. From that position he could see what the trick dispatchers were doing nearby, follow the progress of trains and hear any radio conversation (selectively) underway on his district.

Each dispatcher has several large color monitors on which the trackage under his control is portrayed. Lights show the position of trains, switches and signals. He (or she) has a computer keyboard and a mouse. By placing the mouse on a switch or signal shown on any one of the screens, then clicking, he can control the switch position and thus the signal indication and resulting train movement.

What about radio communications? VHF hi-band around 160 MHz is used. All locomotives, maintenance vehicles and supervisors are equipped.

Out on the lines, numerous remote bases are located as needed. Their receivers are always listening for incoming transmissions. However, the dispatchers listen selectively; they don't have to listen to all the train-to-train conversations going on over hundreds of miles and many trains. If a train (or maintenance vehicle) wants to talk to the dispatcher, they key their microphone with an added tone that opens up the nearest remote base receiver, keys its associated transmitter and the tone comes out over the dispatchers speaker. He selects the associated transmitter and the contact is underway.

Once again, computers come into play. One of the monitors before each dispatcher (and the chief) is set up to show all the remote base sites on the screen plus all the commonly called telephone numbers. It's a "touch" screen; all he need do is either touch the spot on the screen with his finger where the site or phone number he wants is shown, or put the mouse cursor on that spot and "click." The remote base or phone is called up and communications is underway.

Most impressive was the truly "hi-fi" quality of the audio between trains and dispatchers. Knowing the noise level inside locomotive cabs, the need for whistling at grade crossings, and the varying levels of speaking by the crewmen into the microphones, it was nothing short of miraculous to listen to the beautiful, clear audio at the dispatcher position. Someone surely did their homework on this...

However, change is coming to Lincoln... I was told that BN will move this center to Ft. Worth in July in a consolidation program.

73, George N8CIX

General Meeting, April 14, 1993

The meeting was called to order by President Luci, NØOUD at 7pm.
Amendment to March minutes - Expenses last month were 1139.59, not 139.59.

Committee Reports:

Education -
Thanks to all volunteer instructors for conducting the Novice and General classes.
VE Testing -
31 applicants were tested at the latest test session.
Interference - There were no reported episodes this month.
RACES -
Times and locations of nets were reviewed.
ARES -
Packet cluster is functional. A users' guide is available for 3.00.
Public Service -
Brief review of upcoming events.
CCARC -
The ARRL has an opening for a Director of Affiliate Clubs.
Woodland Park Hamfest - Dates are July 24th and 25th.
Public Relations -
The Baptist Church across from the City Auditorium will be used for VE testing at the May Swapfest.
Field Day -
Will be held on the last weekend in June. There is a need for station operators for packet, Novice/Tech and VHF/UHF.
Ø-Beat:
The May and June issues of Ø-Beat will be combined. The issue will be mailed May 7, 1993. The membership roster will be updated this month. Please submit any changes to Les, KCØNC. The May and June calendar was passed around for additions or corrections.

Treasurer's Report:

Previous Balance:	$673.62
Income:	$433.35
Expenses:	$422.67
New Balance:	$684.30

New Business:

The need to find a new meeting location was discussed. A motion was carried to form a committee for this purpose.

Old Business:

None

Program:

Jim Maxwell from the National Weather Service and Steve Westby WB7VHR conducted the SKYWARN training program.

Submitted by Liz, NØTUK PPRAA Secretary

Board Meeting, April 18, 1993

The meeting was held at the QTH of Ken, NØNKP.
The following members attended:
Luci, NØOUD, Tom, NØNTX, Harv, WB6YXD, Ken, NØNKP, Steve WB7VHR, Steve, KØCI, Ron NKØP, Bill, NØNJX, Liz, NØTUK.

The need to move the PPRAA meeting was discussed. We will actively pursue the possibility of using the DAV.

Extra copies of the Ø-Beat will be printed so that they can be given away at the Swapfest. Copies of the roster will also be printed and distributed.

Mike, KØTER reported that there is donated equipment which could be sold at the Swapfest.

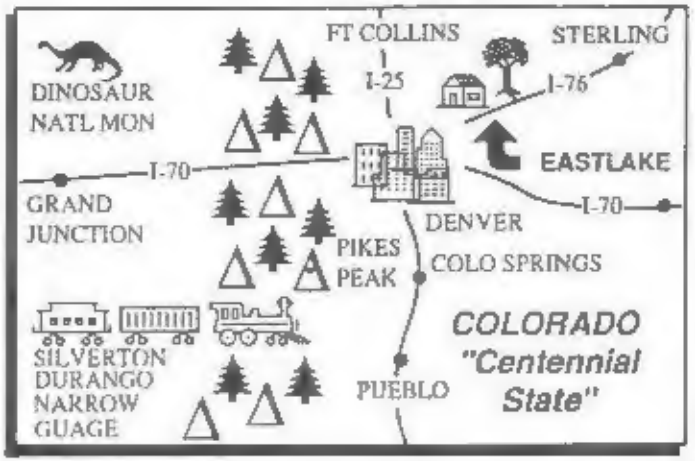
Steve WB7VHR will review the equipment which is now located at Mike's QTH.

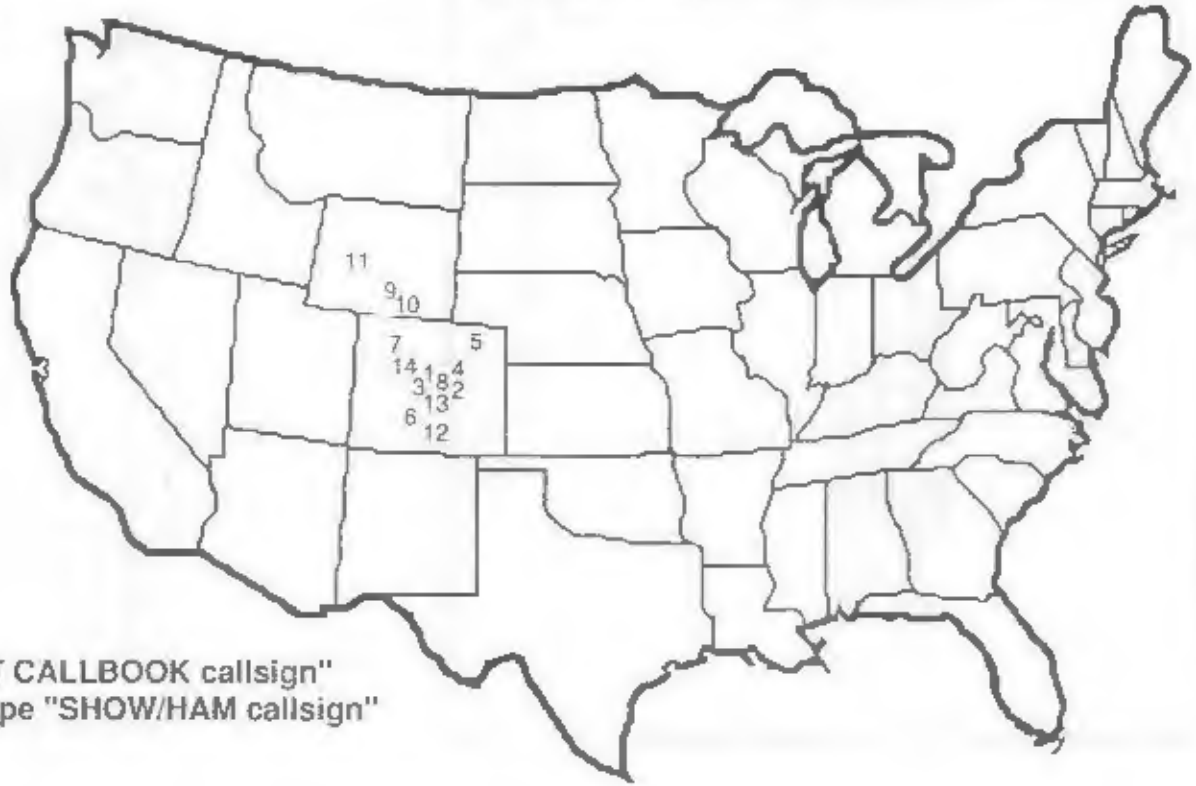
The meeting was adjourned at 4:45pm (after 45min). The next board meeting will be held on May 17 at 7pm at the QTH of Steve, KØCI.

Submitted by Liz, NØTUK

NetNode, TheNet, MSYS DXnode, PacketCluster System

1 NONBH-2 (COLO) MSYS NetNode in Northglenn on 145.01/.03/.07/.08/.79, 28.103 & PACSAT
1 NONBH-8 MSYS DXNode in Northglenn on 145.01/.03/.07/.08/.79, 28.103 & PACSAT
2 WOLJF-6 (AURORA) MSYS NetNode in Aurora on 145.03/.05
2 WOLJF-2 MSYS DXNode in Aurora on 145.03/.05
3 NOMFL PacketCluster in Westminster on 144.99
4 WDOINQ-2 (NWS) PacketCluster in Aurora on 145.01
5 WDOHDR-1 (HPARC) NetNode in Sterling on 145.01
6 AAOL (BF) NetNode in Black Forest on 145.01
7 NOMQK-7 (STMBT) NetNode in Steamboat on 145.01
8 WDOHNQ PacketCluster in Thornton on 145.01
8 DEN (KOOJ-1) NetNode in Thornton on 145.01
9 NOESG-8 MSYS DXNode in Cheyenne Wyoming on 145.01/.05
10 NOCLV-8 MSYS DXNode in Cheyenne Wyoming on 145.05/.09
11 NOMMC-8 MSYS DXNode in Laramie Wyoming on 145.05
12 KA0GZN-2 (PUEBLO) NetNote in Pueblo on 145.01
13 WOYNE-1 (COS) NetNode in Colorado Springs on 145.01
14 KC0VN-2 (ELDORA) TheNet in Mt. Thorodin on 145.09





On-line callbook available on PacketCluster and MSYS DXNode stations.
DXNode - connect to DXNode then type "T CALLBOOK callsign"
PacketCluster - connect to Cluster then type "SHOW/HAM callsign"

IT'S SWAPFEST TIME
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Renay Boyes
KAOROY

BEST KEPT SECRET IN SCIENCE...

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